

The phrases "low dose" or "low dose amount", in characterizing a therapeutically effective amount of the antiangiogenesis agent and the antineoplastic agent or therapy in the combination therapy, defines a quantity  
5 of such agent, or a range of quantity of such agent, that is capable of improving the neoplastic disease severity while reducing or avoiding one or more antineoplastic-agent-induced side effects, such as myelosuppression, cardiac toxicity, alopecia, nausea or  
10 vomiting.

The phrase "adjunctive therapy" encompasses treatment of a subject with agents that reduce or avoid side effects associated with the combination therapy of the present invention, including, but not limited to,  
15 those agents, for example, that reduce the toxic effect of anticancer drugs, e.g., bone resorption inhibitors, cardioprotective agents; prevent or reduce the incidence of nausea and vomiting associated with chemotherapy, radiotherapy or operation; or reduce the incidence of  
20 infection associated with the administration of myelosuppressive anticancer drugs.

The phrase an "immunotherapeutic agent" refers to agents used to transfer the immunity of an immune donor, e.g., another person or an animal, to a host by  
25 inoculation. The term embraces the use of serum or gamma globulin containing performed antibodies produced by another individual or an animal; nonspecific systemic stimulation; adjuvants; active specific immunotherapy; and adoptive immunotherapy. Adoptive immunotherapy  
30 refers to the treatment of a disease by therapy or agents that include host inoculation of sensitized

lymphocytes, transfer factor, immune RNA, or antibodies in serum or gamma globulin.

The phrase a "device" refers to any appliance,  
5 usually mechanical or electrical, designed to perform a particular function.

The phrase a "vaccine" includes agents that induce the patient's immune system to mount an immune response  
10 against the tumor by attacking cells that express tumor associated antigens (TAAs).

The phrase "multi-functional proteins" encompass a variety of pro-angiogenic factors that include basic and  
15 acid fibroblast growth factors (bFGF and aFGF) and vascular permeability factor/vascular endothelial growth factor (VPF/VEGF) ( Bikfalvi, A. et al., *Endocrine Reviews* 18: 26-45, 1997). Several endogenous antiangiogenic factors have also been characterized as  
20 multi-functional proteins and include angiostatin (O'Reilly et al., *Cell (Cambridge, Mass)* 79(2): 315-328, 1994), endostatin (O'Reilly et al, *Cell (Cambridge, Mass)* 88(2): 277-285, 1997), interferon .alpha. (Ezekowitz et al, *N. Engl. J. Med.*, May 28, 326(22)  
25 1456-1463, 1992), thrombospondin (Good et al, *Proc Natl Acad Sci USA* 87(17): 6624-6628, 1990; Tolsma et al, *J Cell Biol* 122(2): 497-511, 1993), and platelet factor 4 (PF4) (Maione et al, *Science* 247:(4938): 77-79, 1990).

30 The phrase an "analgesic agent" refers to an agent that relieves pain without producing anesthesia or loss

of consciousness generally by altering the perception of nociceptive stimuli.

The phrase a "radiotherapeutic agent" refers to the use of electromagnetic or particulate radiation in the treatment of neoplasia.

The term "pBATT" embraces" or "Protein-Based Anti-Tumor Therapies," refers to protein-based therapeutics for solid tumors. The pBATTs include proteins that have demonstrated efficacy against tumors in animal models or in humans. The protein is then modified to increase its efficacy and toxicity profile by enhancing its bioavailability and targeting.

"Angiostatin" is a 38 kD protein comprising the first three or four kringle domains of plasminogen and was first described in 1994 (O'Reilly, M. S. et al., *Cell (Cambridge, Mass.)* 79(2): 315-328, 1994). Mice bearing primary (Lewis lung carcinoma-low metastatic) tumors did not respond to angiogenic stimuli such as bFGF in a corneal micropocket assay and the growth of metastatic tumors in these mice was suppressed until the primary tumor was excised. The factor responsible for the inhibition of angiogenesis and tumor growth was designated mouse angiostatin. Angiostatin was also shown to inhibit the growth of endothelial cells in vitro.

Human angiostatin can be prepared by digestion of plasminogen by porcine elastase (O'Reilly, et al., *Cell* 79(2): 315-328, 1994) or with human metalloelastase (Dong et al., *Cell* 88, 801-810, 1997). The angiostatin produced via porcine elastase digestion inhibited the